

REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Office Action dated May 21, 2007. In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

Claims 4-8 and 12-19 are under consideration in this application. Claims 2-3 and 10-11 are being cancelled without prejudice or disclaimer. Claims 4-8, 12-16 and 19 are being amended, as set forth in the above marked-up presentation of the claim amendments, in order to correct formal errors and/or to more particularly define and distinctly claim applicant's invention.

All the amendments to the claims are supported by the specification. Applicants hereby submit that no new matter or new issue is being introduced into the application through the submission of this response.

Formality Rejection

Claims 8, 10 and 16 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Claim 19 was still rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. As indicated herein above, the claims are being amended as required by the Examiner. Accordingly, the withdrawal of the outstanding informality rejections is in order, and is therefore respectfully solicited.

Prior Art Rejections

Claims 1, 5-6, 9 and 13-14 remain rejected under 35 U.S.C. §102(e) as being anticipated by US Pat. No. 6,775,518 to Norcott et al. (hereinafter "Norcott"), and claim 19 remains rejected by US Pat. No. 6,411,796 to Remschel (hereinafter "Remschel"). Claims 2-6 and 10-14 were rejected under 35 U.S.C. §103(a) as being unpatentable over Norcott in view of US Publication No. 2005/0216443 of Morton et al. (hereinafter "Morton"), claims 7-8 and 15-18 were rejected over Norcott in view of Remschel, and claim 19 was rejected over Remschel in view of Norcott. These rejections have been carefully considered, but are most respectfully traversed.

The invention as now recited in claims 2, 10 and 19 not only (1) extracts text information and/or drawing information from the video information included in the class information, extracts text information from the audio information included in the class information, and correlates the video information with the lecture-related information by comparing the text information and/or the drawing information with the lecture-related information (cancelled claim 2), but also adds time information relating to lecture contents comprising the source of the text information and/or the drawing information to the extracted text information and/or drawing information, and extracts words from the text information, extracts time information on locations where specified words frequently appear in the text information, and selects the video information corresponding to the time information (original claim 4). In particular, The analyzer adds time information relating to lecture contents to the extracted text information per sentence and/or to the extracted drawing information per drawing. The matcher section extracts words from said extracted text information and said extracted drawing information, extracts time information on word locations where specified words frequently appear in said extracted text information and said extracted drawing information, extracts said video information corresponding to said specified words in each sentence or in each drawing with said time information, and extracts said audio information corresponding to said specified words in each sentence with said time information.

The voice text data is divided up into voice sections (sentences) ([0085]), the image data are divided by image (drawings in the class material, etc.) on a clipboard shown to the students by the instructor (0086). The start time and end times that were added to the audio or video data are used as time stamps ([0085]; Fig. 10). This program 101207 extracts locations in the divided data with time stamps where the same term frequently occurs, for both the course materials as well as the review problem data. Video frame data for review problems linked to a review problem number are created for locations where the frequently appearing words in the integrated data with-time-stamp matches the review problem data and course material data and this video frame data is stored in the hard disk 1013 ([0063]; Fig. 6). A word name, appearance count, time span start time, time span end time are stored for each frequently appearing word in the data storage area in time span data word units (S3003) ([0093]; Fig. 11). The program 101207 extracts the time span where collation results show the same word frequently appears, storing it as word unit overlap flag data (S3002 to S3005) ([0100]; Fig. 12). Video frame data for a location corresponding to the time span of the

integrated data is extracted from the above stored time span information of the drawing correlation data and the text correlation data. Using this data, video frame data matching the review problem and linked to the review problem number (No.) is generated and stored in the data storage area 101306 (S3012) ([0105]), and then presented for the student to review.

According to the present invention, a frequency of appearances of a specified word in the text information is used to extract corresponding audio data per sentence and corresponding video data per image/drawing to present to a student. Therefore, the locations emphasized by the teacher becomes clear, and the point of the lecture becomes clear. As such, the students can recognize the lecture with a high degree of accuracy, and the students can appropriately select points which are required for learning ([0139]-[0140]).

As admitted by the Examiner (p. 5, last paragraph of the outstanding Office Action), Norcott is silent regarding the features recited in the original claim 4. Morton (paragraphs [0059]-[0060]; Fig. 1) was relied upon by the Examiner to provide those teachings. However, Morton, at most, applies a relevance interval for search and for indexing against time media, takes various information into account, but fails to specifically add the time information into the text information and/or the drawing information, and select the video information corresponding to locations where specified words frequently appear in the text information.

The invention now recited in claim 19 (pp. 30-33; Fig. 15) is directed to a software program embedded in a computer readable medium and operable when executed by a computer to selectively distribute supplemental lecture contents from an instructor terminal to students, and further comprises: a module of displaying in individual groups of students sorted into the groups sharing identical wrong replies to lecture contents sent from student terminals (*"extract students who gave the same wrong answers...to the review problems"* p. 30, lines 6-8; S6002 in Fig. 15); a module of displaying information to be specified by one of the students, and the learning progress status of said one student and a respective student terminal display screen; and a module of facilitating communication between an instructor terminal connected over a network to an information management server for selectively distributing supplemental lecture contents from the instructor terminal to the students per group (*"set as tutoring student group"* p. 31, lines 23-24; *"The grouping in the embodiment of the present invention was utilized for tutoring purposes."* P. 32, lines 3-4; *"monitoring the state of the group of students undergoing tutoring"* p. 32, lines 15-16; *"The student learns from the supplemental learning contents sent to the student PC 103."* P. 32, lines 24-25;

"When the tutoring start time determined by each student group is reached, the tutor begins tutoring the student group." p. 33, lines 8-10; S6007 in Fig. 15).

By dividing the students into groups according to their replies to exercise (or drill) problems, the instructor can address/tutor the students in groups. The invention spares the instructor from the trouble of setting up communications with each student in order to schedule tutoring for the same problems.

In contrast, Remschel only (1) randomly assigns students in a roster file to various groups or (2) sets a particular formed group as a model to all other students not in the group (Abstract; *"to form at least one student group made up of randomly selected ones of said plurality of students"* claim 1), rather than "sorting students into the groups sharing identical wrong replies to lecture contents" as in the present invention.

At most, Remschel only assigns students to a particular group based upon the status of any particular attribute stored in the roster file, such as which assignment has been previously completed by a particular student or the student's success on various prior assignments (col. 8, lines 48-53), or makes class based on the information of a roster file (e.g. a weight factor of test score (col. 15, lines 21-36), but not grouping students "sharing identical wrong replies to lecture contents" as the present invention.

Regarding the Examiner's assertion on p. 7, lines 16-18 of the outstanding Office Action, Applicants respectfully contend that a person of ordinary skill would not be motivated to modify or combine the cited portions in Remschel in such a manner as to embody each and every feature of the present invention as now claimed. Applicants will further contend that the combination of references used by the Examiner merely consists of selecting bits and pieces from each portion, and then combining those bits and pieces using knowledge or hindsight gleaned from the disclosure of the present invention as a guide to support the combination. The well established rule of law is that each prior art reference must be evaluated as an entirety, and that all of the prior art must be considered as a whole," *Panduit Corp. v. Dennison Mfg. Co.*, 227 USPQ 337, 344 (Fed. Cir. 1985). See *Paradigm Mfg. Inc. v. SGS Importers Intl., Inc.*, 73 F.3d 1085, 37 USPQ2d 1237 (Fed. Cir. 1995) ("Obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor.").

None of those portions: "grouping students based upon attributes in the roster file" and "roster file containing test data weighted to reflect only particular answers to particular questions" provides any sufficient teaching or suggestion that would teach or suggest

"grouping students sharing identical wrong replies to lecture contents" as in the present invention. Applicants would contend that no one of ordinary skill in the art would be able to comprehend how the Examiner extracted the conclusion of "grouping students sharing identical wrong replies to lecture contents" from the description of "*the teacher optionally may designate a test weight factor (e.g., between 1 and 10) for the current test and, then, each student score, along with the test weight factor, is added to the roster file for that class. In addition, a question weight factor for each individual question within the test may be set, if desired, and the question weight factors also are stored in the roster file. Generally, the test weight factor determines the number of times a test and the corresponding student score is counted in the average. If question weight factors are provided, then the student score reflects the particular question weight factors of the questions in that test. Of course, other weighting factors also may be utilized* (col. 15, lines 21-36)."

However, Applicants respectfully remind the Examiner that any reliance on "common knowledge and common sense" to modify the prior art cited to meet the terms of the claims bears the agency's obligation to cite references to support any such modifications. The Examiner must provide the specific teaching of such a modification on the record, such as statement in the prior art about the features or motivation to modify, to allow accountability.

To establish a prima facie case of obviousness, the Examiner must, inter alia, show "some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references." In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). "The motivation, suggestion or teaching may come explicitly from statements in the prior art, the knowledge of one of ordinary skill in the art, or, in some cases the nature of the problem to be solved." Kotzab, 217 F.3d at 1370, 55 USPQ2d at 1317. Recently, in In re Lee, 277 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002), we held that the Board's reliance on "common knowledge and common sense" did not fulfill the agency's obligation to cite references to support its conclusions. Id. at 1344, 61 USPQ2d at 1434. Instead, the Board must document its reasoning on the record to allow accountability. Id. at 1345, 61 USPQ2d at 1435.

Applicants contend that neither Norcott, Morton, Remschel, nor their combinations teaches or suggests each and every feature of the present invention as recited in independent claims 4, 12, and 19. As such, the present invention as now claimed is distinguishable and

thereby allowable over the rejections raised in the Office Action. The withdrawal of the outstanding prior art rejections is in order, and is thus respectfully solicited.

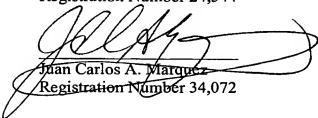
Conclusion

In view of all the above, clear and distinct differences as discussed exist between the present invention as now claimed and the prior art reference upon which the rejections in the Office Action rely, Applicants respectfully contend that the prior art references cannot anticipate the present invention or render the present invention obvious. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicants' undersigned representative at the address and telephone number indicated below.

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